

## Supporting information

Supporting Figure S1a. Quality of included studies- Cluster randomised trials.

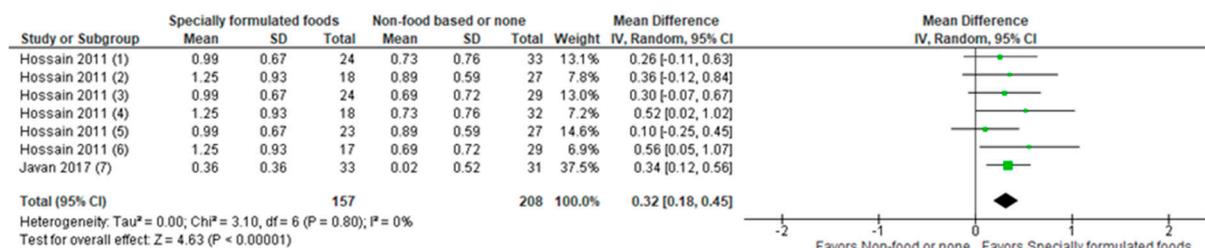
Study ID	D1a: Randomisation process	D1b: Timing of identification or recruitment of participants	D2: Deviations from the intended interventions	D3: Missing outcome data	D4: Measurement of the outcome	D5: Selection of the reported result	Overall
Lelijveld 2021	+	+	!	+	!	+	!
Nikiema 2014	+	+	+	+	-	+	!

Supporting Figure S1b. Quality of included studies- Individually randomised trials.

Study ID	D1: Randomisation process	D2: Deviations from the intended interventions	D3: Missing outcome data	D4: Measurement of the outcome	D5: Selection of the reported result	Overall
Vanelli 2014	!	+	+	-	-	-
Hossain et al, 2011	+	!	+	!	+	!
Javan et al, 2017	!	!	+	+	+	!

+ Low risk  
 ! Some concerns  
 - High risk

Supporting Figure S2. Forest plot of specially formulated foods compared to non-food-based approaches or none- Outcome: Weight-for-height z-score.



### Footnotes

- (1) Follow-up at community clinics + cereal-based supplementary food (C-SF) vs. fortnightly follow-up at community clinics (C-C); change in WHZ over a 3 months intervention period
- (2) Follow-up at community clinics+ cereal-based supplementary food and psychosocial stimulation (C-SF+PS) vs. C-C plus psychosocial stimulation (C-PS); change in WHZ over 3 months
- (3) C-SF vs.followup at health clinics (H-C); change in WHZ over 3 months
- (4) C-SF+PS vs C-C; change in WHZ over 3 months
- (5) C-SF vs C-PS, Change in WHZ over 3 months
- (6) C-SF+PS vs H-C; change in WHZ over 3 months
- (7) Supplemented Blended Flour (Shadmeen) + Min/VIT + Counselling vs. MMN + Nutrition counselling; Increase in WHZ from baseline to endline

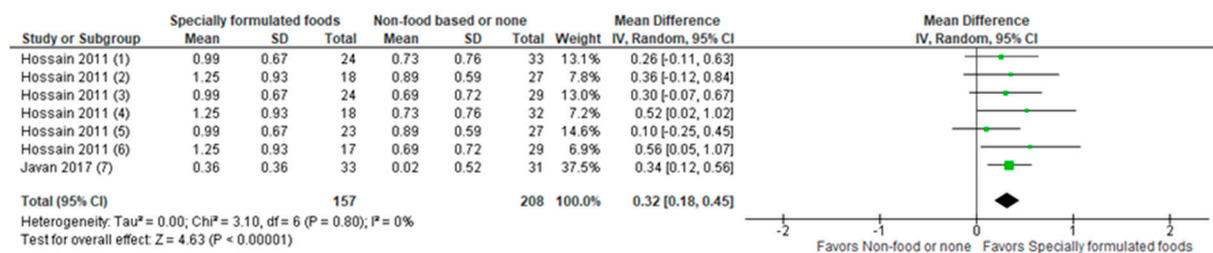
**Supporting Figure S3.** Forest plot of specially formulated foods compared to non-food-based approaches or none- Outcome: Deterioration to SAM.



**Footnotes**

- (1) Fortified blended food (CSB++) vs. Child centered counselling (CCC); developed SAM defined as WHZ <-3
- (2) RUSF vs. CCC; developed SAM defined as WHZ <-3

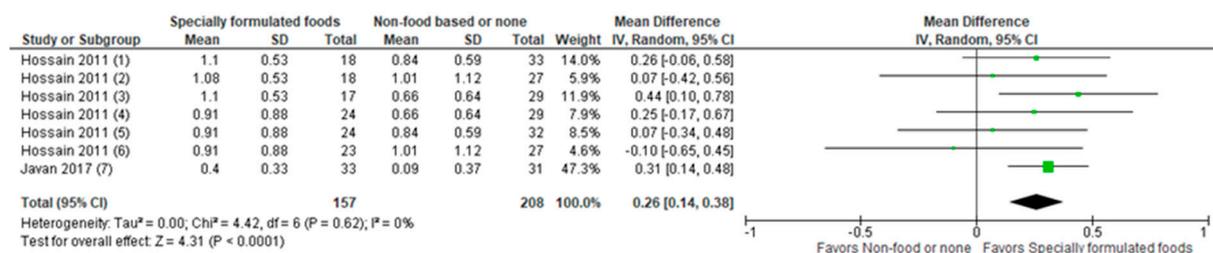
**Supporting Figure S4.** Forest plot of specially formulated foods compared to non-food-based approaches or none- Outcome: Weight-for-height z-score.



**Footnotes**

- (1) Follow-up at community clinics + cereal-based supplementary food (C-SF) vs. fortnightly follow-up at community clinics (C-C); change in WHZ over a 3 months intervention period
- (2) Follow-up at community clinics+ cereal-based supplementary food and psychosocial stimulation (C-SF+PS) vs. C-C plus psychosocial stimulation (C-PS); change in WHZ over 3 months
- (3) C-SF vs. followup at health clinics (H-C); change in WHZ over 3 months
- (4) C-SF+PS vs C-C; change in WHZ over 3 months
- (5) C-SF vs C-PS. Change in WHZ over 3 months
- (6) C-SF+PS vs H-C; change in WHZ over 3 months
- (7) Supplemented Blended Flour (Shadmeen) + Min/VIT + Counselling vs. MMN + Nutrition counselling; increase in WHZ from baseline to endline

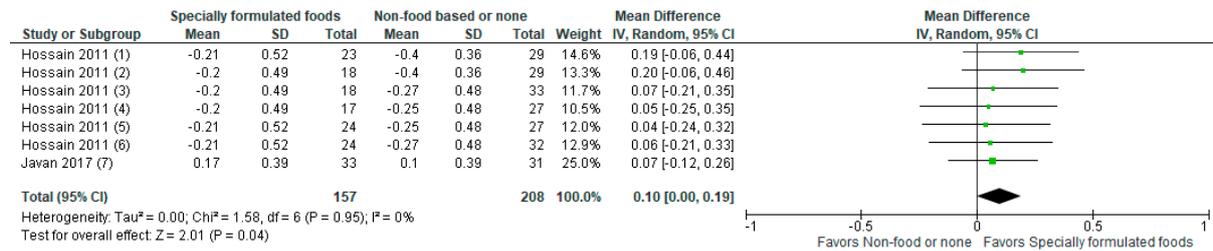
**Supporting Figure S5.** Forest plot of specially formulated foods compared to non-food-based approaches or none- Outcome: Weight-for-age z-score.



**Footnotes**

- (1) Fortnightly follow-up at community clinics (C-C) plus cereal-based supplementary food plus psychosocial stimulation (C-SF+PS) vs. C-C; Change in WAZ over 3 months
- (2) C-SF+PS vs. C-C plus psychosocial stimulation (C-PS); Change in WAZ over 3 months
- (3) C-SF+PS vs. fortnightly follow-up at hospital (H-C); Change in WAZ
- (4) Follow-up at community clinics + cereal-based supplementary food (C-SF) vs. H-C; Change in WAZ over 3 months
- (5) C-SF vs. C-C; Change in WAZ
- (6) C-SF vs. C-PS. Change in WAZ over 3 months
- (7) Supplemented Blended Flour (Shadmeen) + Min/VIT + Counselling vs. MMN + Nutrition counselling; Change in WAZ over intervention period

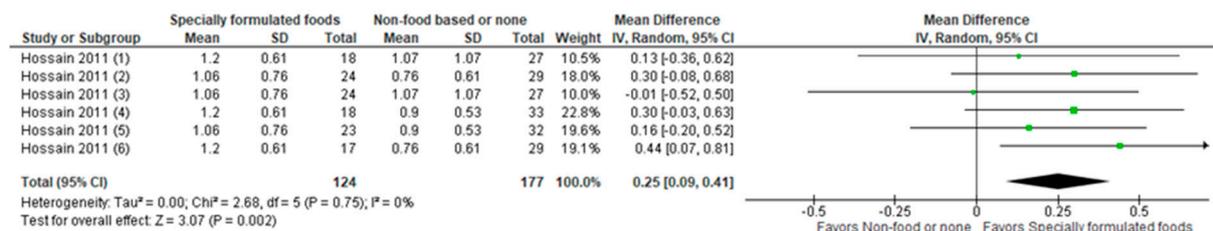
**Supporting Figure S6.** Forest plot of specially formulated foods compared to non-food-based approaches or none- Outcome: Height-for-age z-score.



**Footnotes**

- (1) C-SF+PS vs. H-C; Change in HAZ over 3 months
- (2) Follow-up at community clinics + cereal-based supplementary food (C-SF) vs. followup at health clinics (H-C)
- (3) C-SF vs. fortnightly follow-up at community clinics (C-C); Change in HAZ over 3 months
- (4) C-SF vs. C-C plus psychosocial stimulation (C-PS); Change in HAZ over 3 months
- (5) Follow-up at community clinics+ cereal-based supplementary food and psychosocial stimulation (C-SF+PS) vs. C-PS; Change in HAZ over the 3 months intervention period
- (6) C-SF+PS vs. C-C; Change in HAZ over 3 months
- (7) Supplemented Blended Flour (Shadmeen) + Min/VIT + Counselling vs. MMN + Nutrition counselling; Change in HAZ over the intervention period

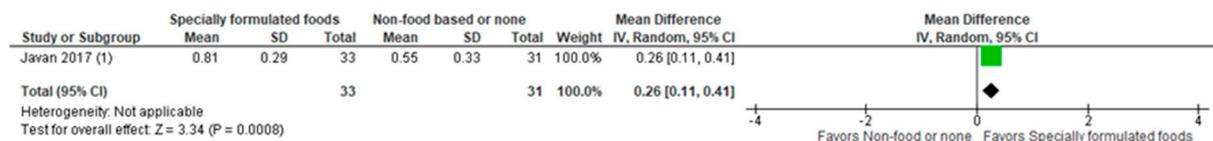
**Supporting Figure S7.** Forest plot of specially formulated foods compared to non-food-based approaches or none- Outcome: MUAC gain.



**Footnotes**

- (1) Follow-up at community clinics + cereal-based supplementary food and psychosocial stimulation (C-SF+PS) vs. C-C plus psychosocial stimulation (C-PS); Change in MUAC (cm) over the...
- (2) Follow-up at community clinics + cereal-based supplementary food (C-SF) vs. followup at health clinics (H-C)
- (3) C-SF vs C-PS; Change in MUAC (cm) over the intervention period
- (4) C-SF+PS vs. fortnightly follow-up at community clinics (C-C); Change in MUAC (cm) over the intervention period
- (5) C-SF vs. C-C; Change in MUAC (cm) over the intervention period
- (6) C-SF+PS vs. H-C; Change in MUAC (cm) over the intervention period

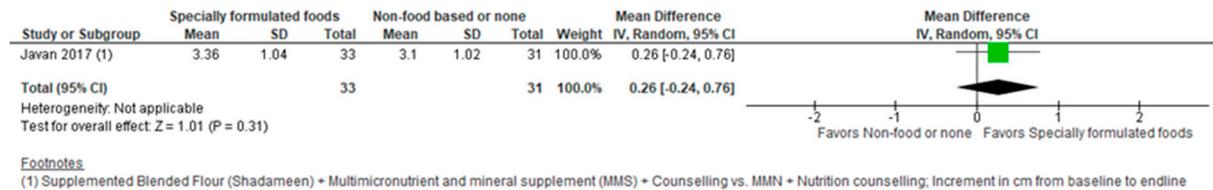
**Supporting Figure S8.** Forest plot of specially formulated foods compared to non-food-based approaches or none- Outcome: Weight gain.



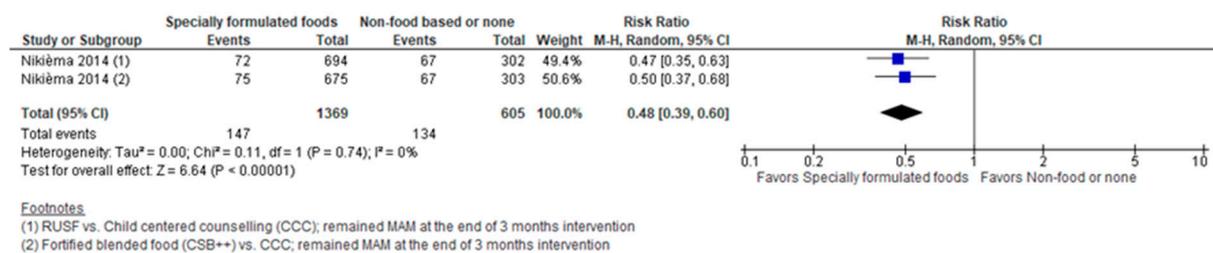
**Footnotes**

- (1) Supplemented Blended Flour (Shadmeen) + Multivitamin and mineral supplement (MMS) + Counselling vs. MMS + Nutrition counselling; Weight gain in grams from baseline to endline

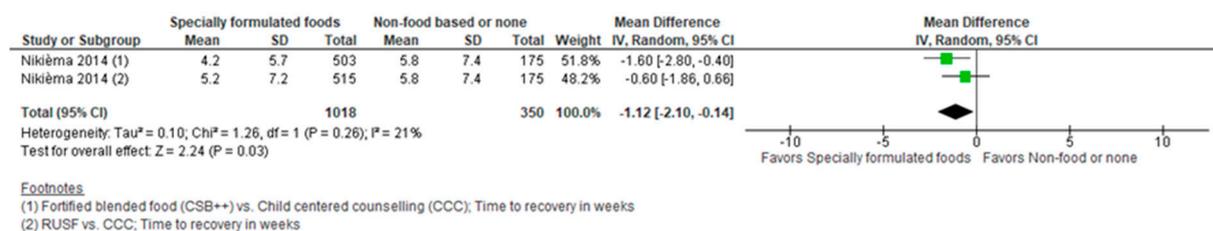
**Supporting Figure S9.** Forest plot of specially formulated foods compared to non-food-based approaches or none- Outcome: Height gain.



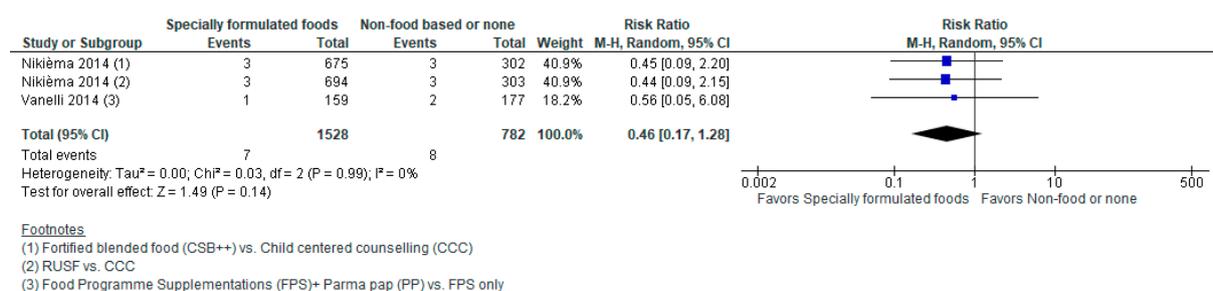
**Supporting Figure S10.** Forest plot of specially formulated foods compared to non-food-based approaches or none- Outcome: Non-response.



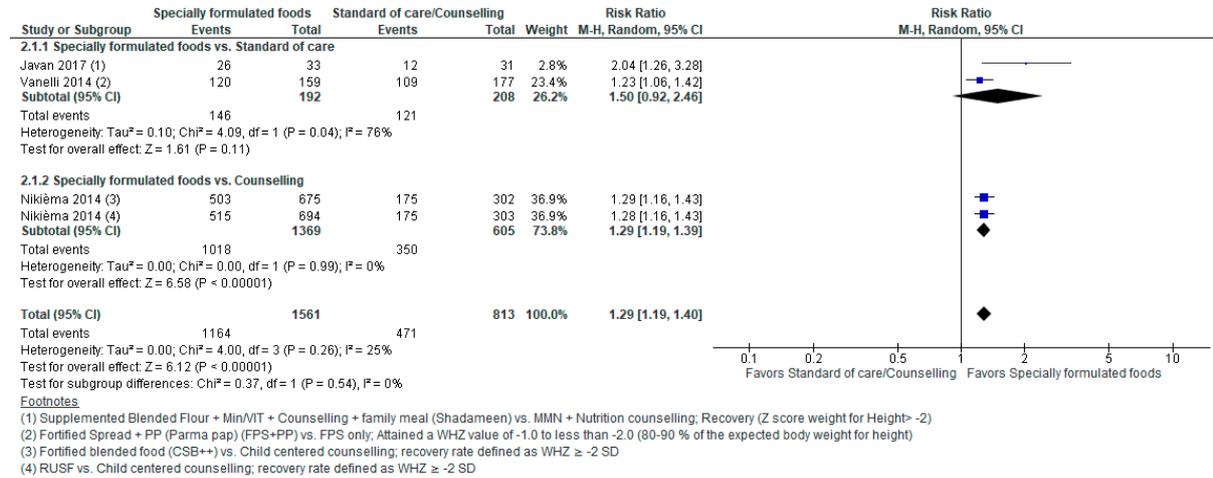
**Supporting Figure S11.** Forest plot of specially formulated foods compared to non-food-based approaches or none- Outcome: Time to recovery.



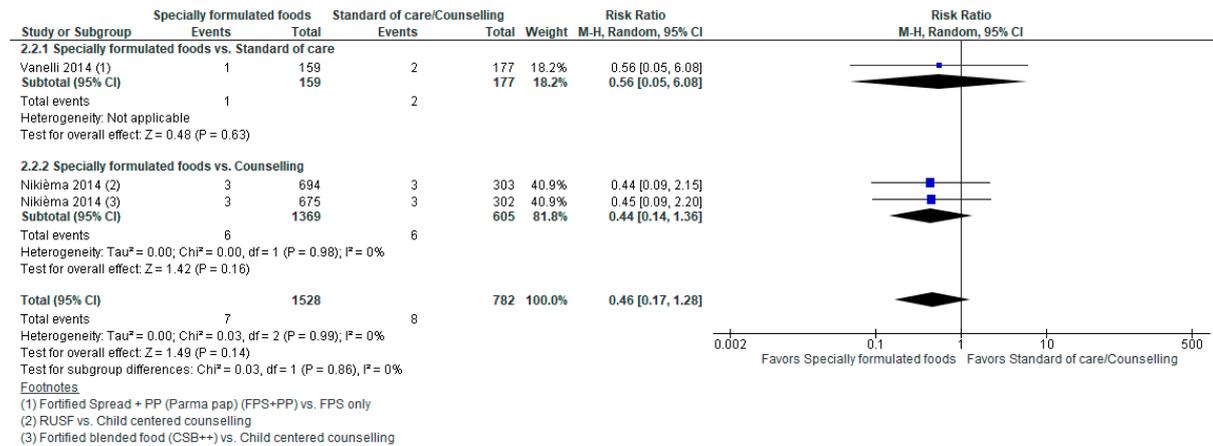
**Supporting Figure S12.** Forest plot of specially formulated foods compared to non-food-based approaches or none- Outcome: Mortality.



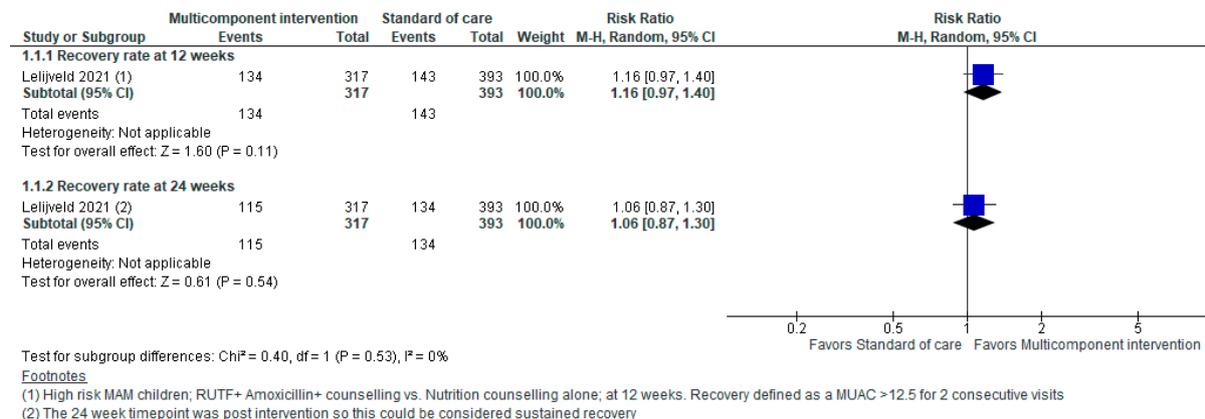
**Supporting Figure S13.** Forest plot of specially formulated foods compared to non-food-based approaches or none- Outcome: Recovery rate (subgroup analysis based on type of comparison group).



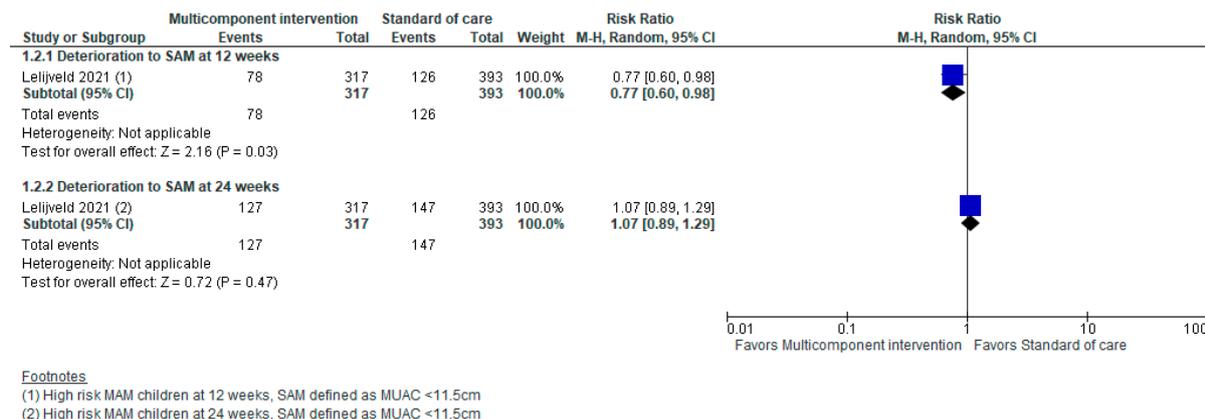
**Supporting Figure S14.** Forest plot of specially formulated foods compared to non-food-based approaches or none- Outcome: Mortality (subgroup analysis based on type of comparison group).



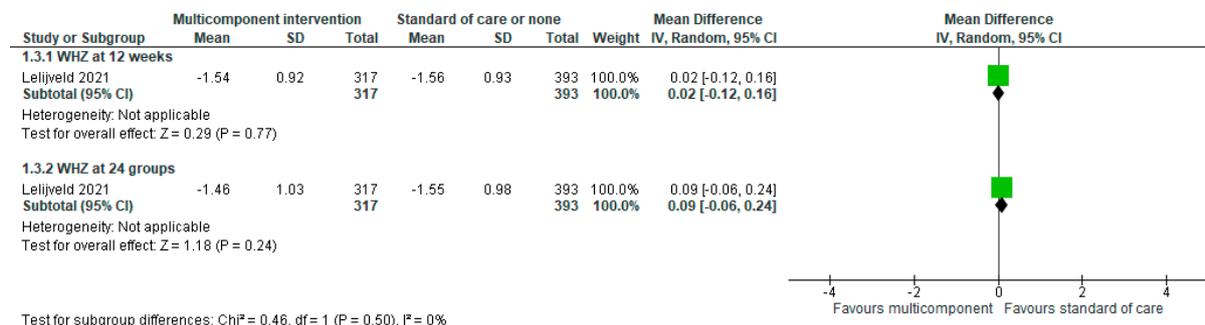
**Supporting Figure S15:** Forest plot of multicomponent intervention compared to non-food-based or none - Outcome: Recovery rate.



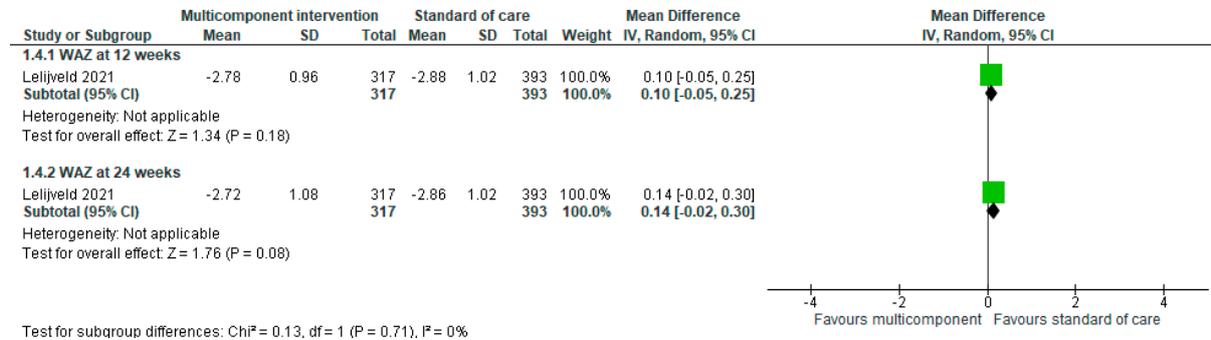
**Supporting Figure S16:** Forest plot of multicomponent intervention compared to non-food-based or none - Outcome: Deterioration to SAM.



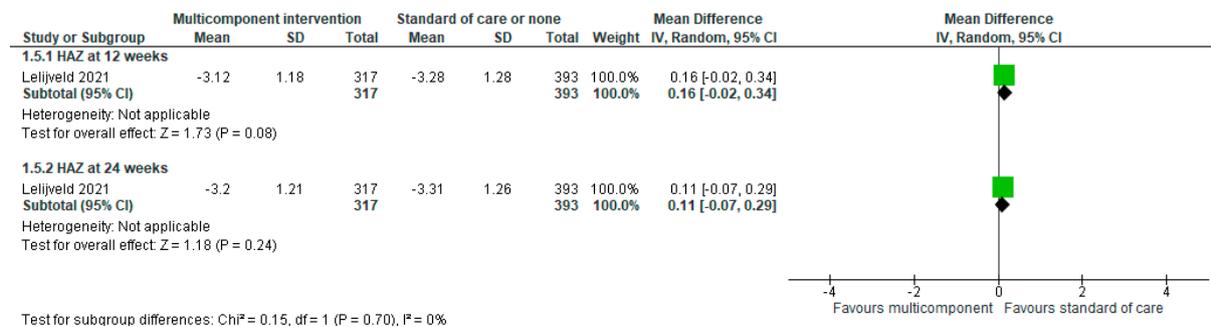
**Supporting Figure S17:** Forest plot of multicomponent intervention compared to non-food-based or none - Outcome: Weight for height z-score.



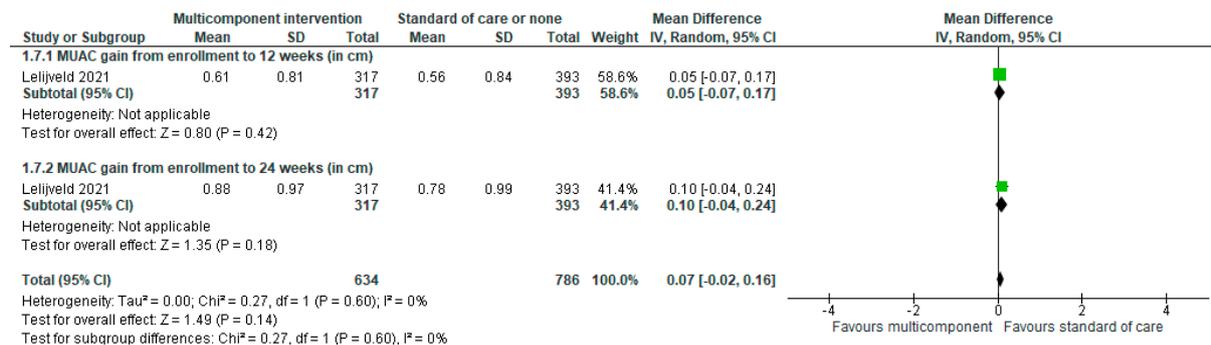
**Supporting Figure S18:** Forest plot of multicomponent intervention compared to non-food-based or none - Outcome: Weight for age z-score.



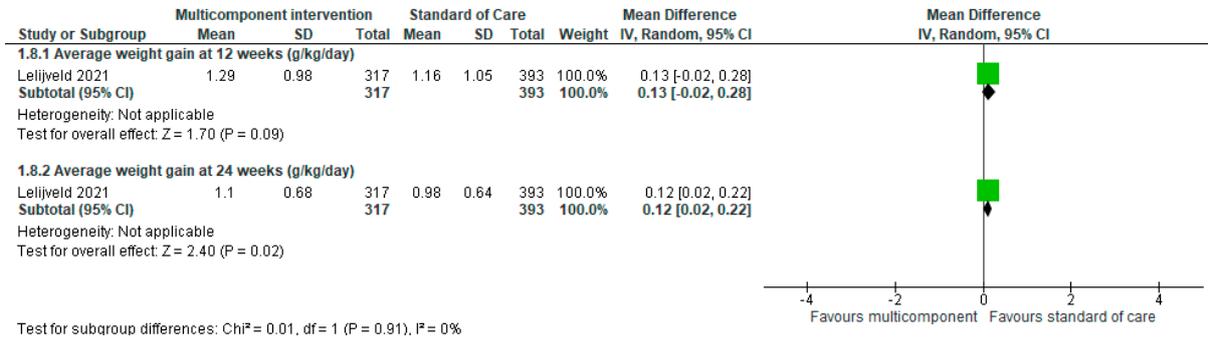
**Supporting Figure S19:** Forest plot of multicomponent intervention compared to non-food-based or none - Outcome: Height for age z-score.



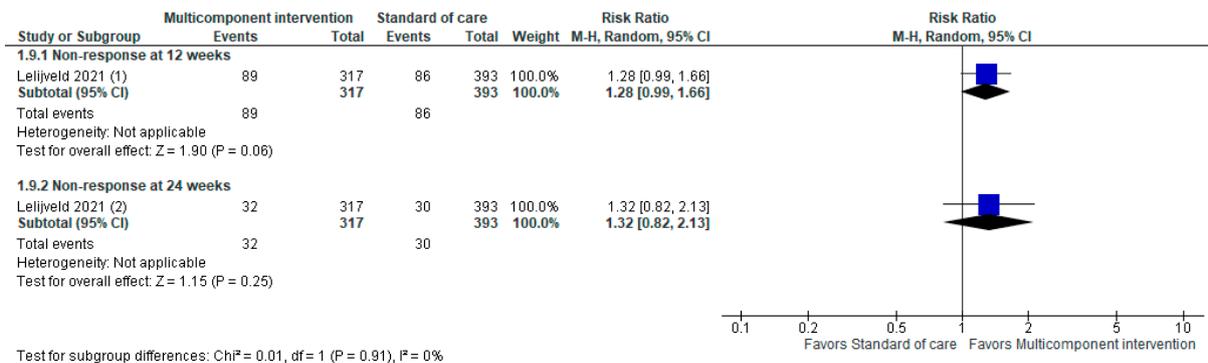
**Supporting Figure S20:** Forest plot of multicomponent intervention compared to non-food-based or none - Outcome: MUAC gain.



**Supporting Figure S21:** Forest plot of multicomponent intervention compared to non-food-based or none - Outcome: Weight gain.



**Supporting Figure S22:** Forest plot of multicomponent intervention compared to non-food-based or none - Outcome: Non-response.



**Footnotes**

- (1) Remained with MAM
- (2) Remained with MAM at 24 weeks

**Supporting Figure S23:** Forest plot of multicomponent intervention compared to non-food-based or none - Outcome: Mortality.

